



CROW'S NEST COAL LANDS.

THE PROPERTY OF THE CROW'S NEST COAL & MINERAL COMPANY, LIMITED.

The coal fields in the Crow's Nest Pass which belong to the Crow's Nest Coal and Mineral Company, are as rich both in the quality and quantity of the coal as any in the world.

The property consists of eleven thousand one hundred and sixty-nine acres, the whole of which are coal lands and upon which five different kinds of coal are found. The seams of coal are superposed and all crop out on the sides of the mountains, and are so favorably situated that no sinking would be required and they can be worked at a minimum of cost. They run in the direct route of the proposed railway.

On the Eastermost property, near Marten Creek, consisting of three thousand nine hundred and sixty-nine acres, there are fifteen seams of coal, four of which are a very valuable cannel or gas coal of the nature of the celebrated Boghead coal of Scotland, and from which oil can be easily extracted with profit.

The remaining seams are a rich bituminous coal equal to any yet found in Canada, and for coking purposes, superior to any yet found, producing a hard, bright, compact coke, equal to the best British coke, which is now imported on the Pacific Coast at a price of twenty dollars per ton.

These fifteen seams vary in thickness of pure coal as follows:—

No. 1	seam	Bituminous	7 feet thick.
" 2	"	"	7 "
" 3	"	"	5 "
" 4	"	Cannel	5 "
" 5	"	"	3 "
" 6	"	"	6 "
" 7	"	"	5 "
" 8	"	Bituminous	14 "
" 9	"	"	5 "
" 10	"	"	7 "
" 11	"	"	5 "
" 12	"	"	30 "
" 13	"	"	7 "
" 14	"	"	4 "
" 15	"	"	23 "

Total.....135 feet of coal.

In the Westernmost property of seven thousand two hundred acres, a distance of twelve miles from the former property, there are twelve superposed seams of coal cropping out of the side of the mountain. These twelve seams vary in thickness of coal, as follows:—

No. 1	seam	Anthracite	30 feet thick.
" 2	"	"	30 "
" 3	"	"	15 "
" 4	"	semi-Anthracite	2 "
" 5	"	"	7 "
" 6	"	"	28 "
" 7	"	"	10 "
" 8	"	"	3 "
" 9	"	"	7 "
" 10	"	Cannel	2 "
" 11	"	semi-Anthracite	7 "
" 12	"	"	2 "

Total.....143 feet of coal.

1887
(42)

The amount of coal cropping out on the surface is so prodigious that the Company has not thought it worth while to sink in search of more seams which in all probability exist.

The Company owns the whole of the workable coal lands on or near the line of railway in the Crow's Nest Pass.

The Crow's Nest Pass through the Rocky Mountains has been surveyed by the Canadian Pacific Railway Company with a view to the railway, and is pronounced the easiest pass known, so easy that it is stated that a railway through it would cost but little more than on the prairie.

The Mouyea Pass through the Selkirks by this route has also been surveyed; it is free from any engineering difficulties or heavy grades, and it goes through a rich mining and timber country.

MARKETS FOR CROW'S NEST COAL AND COKE.

The markets for the coal have been accurately ascertained, and the following is an approximate estimate of the amount of coal which could be sold as soon as the railway is completed, and also the profits which could be made upon such sales. The estimates are made on offers for the quantities at the present date, but the consumption is increasing rapidly. The offers based upon the samples of coal taken from the mines and submitted for inspection at San Francisco. The quality of the coke which can be made from the bituminous coal on Marten Creek is equal to the best English coke which now sells at San Francisco at twenty dollars per ton.

ASCERTAINED MARKETS FOR CROW'S NEST COAL PER ANNUM.

SAN FRANCISCO.

Cannel Coal.....	120,000 tons at \$11.00.....	\$1,320,000
Coke.....	120,000 " " 12.00.....	1,440,000
Blacksmith's Coal..	36,000 " " 13.00.....	468,000

COST TO COMPANY.

Getting the Coal.....	120,000 tons at \$1.00.....	\$ 120,000
Getting the Coke.....	120,000 " " 2.00.....	240,000
Getting Blacksmith's Coal	36,000 " " 1.00.....	36,000
Freight to Vancouver.....	276,000 " " 5.00.....	1,380,000
Freight to San Francisco.....	276,000 " " 2.00.....	552,000
Duty on.....	276,000 " " 75.....	207,000
Incidentals on.....	276,000 " " 25.....	69,000
Balance—Profit, San Francisco.....		624,000

\$3,228,000 \$3,228,000

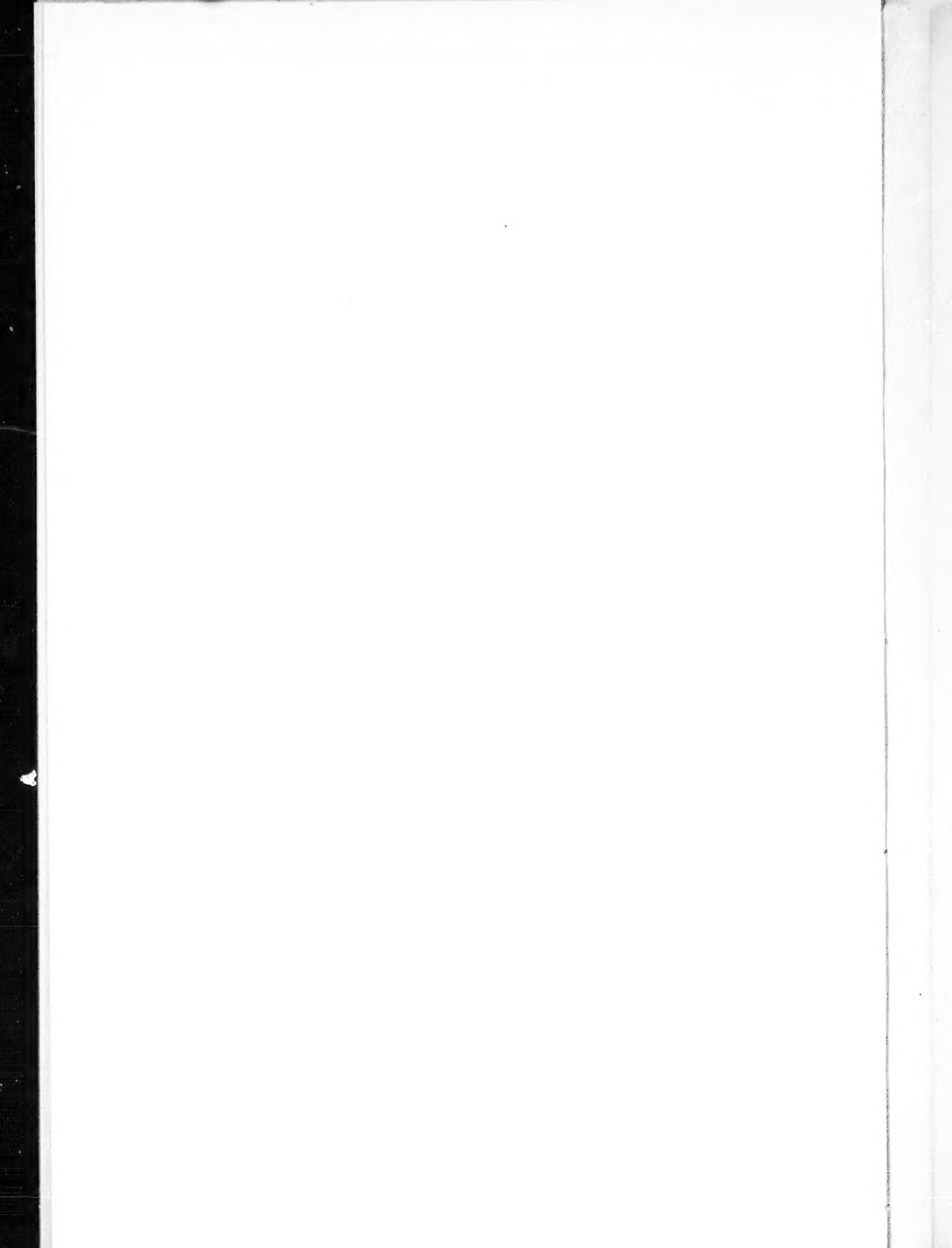
PORTLAND AND COAST TOWNS.

Cannel Coal—20,000 tons at \$11.00.....	\$220,000
Coke—20,000 " " 12.00.....	240,000
Black Coal—20,000 " " 13.00.....	260,000

COST TO COMPANY—

Getting Cannel Coal, 20,000 tons at \$1.00.....	\$20,000
" Coke, 20,000 " " 2.00.....	40,000
" Black's Coal, 20,000 " " 1.00.....	20,000
Freight to Vancouver, 60,000 " " 5.00.....	300,000
Sea freights on say 25,000 " " 1.00.....	25,000
Duty on 60,000 " " 75 cents.....	45,000
Incidentals on 60,000 " " 25.....	15,000
Balance—Profit, Portland and Coast Towns.....	225,000

\$720,000 \$720,000



HELENA AND BUTTE CITY.

Coke—150,000 tons at \$14.00.....	\$2,100,000
Blacksmith's Coal—50,000 tons at \$15.00.....	750,000

COST TO COMPANY—

Getting 150,000 tons Coke at \$2.00.....	\$ 300,000
Freight to Helena, 150,000 tons at \$5.00.....	750,000
Freight to Helena, 50,000 tons at \$5.00.....	50,000
Duty on 200,000 tons at 75 cents.....	150,000
Incidentals, 200,000 tons at 25 cents.....	50,000
Balance—Profit.....	1,550,000
	\$2,850,000 \$2,850,000

KOOTENAY LAKE MINING CAMPS AND LOCAL MARKETS.

Coke, 5,000 tons at \$20.00.....	\$100,000
Blacksmith's Coal, 1,000 tons at \$20.00.....	20,000
Bituminous Coal, 5,000 tons at \$8.00.....	40,000

COST TO COMPANY—

Getting 5,000 tons Coke at \$2.00.....	\$ 10,000
Getting 1,000 tons Blacksmith's Coal at \$1.00.....	1,000
Getting 5,000 tons Bituminous Coal at \$1.00.....	5,000
Freight on 11,000 tons, say \$3.00.....	33,000
Incidentals on 11,000 at 25 cents.....	2,750
Balance—Profit.....	108,250
	\$160,000 \$160,000

RAILWAY PURPOSES, SOLD AT MINES.

Bituminous Coal, 50,000 at \$2.05.....	\$100,000
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COST TO COMPANY—

Getting 50,000 tons at \$1.00.....	\$ 50,000
Balance—Profit.....	50,000
	\$100,000 \$100,000

HER MAJESTY'S NAVY ON THE PACIFIC COAST.

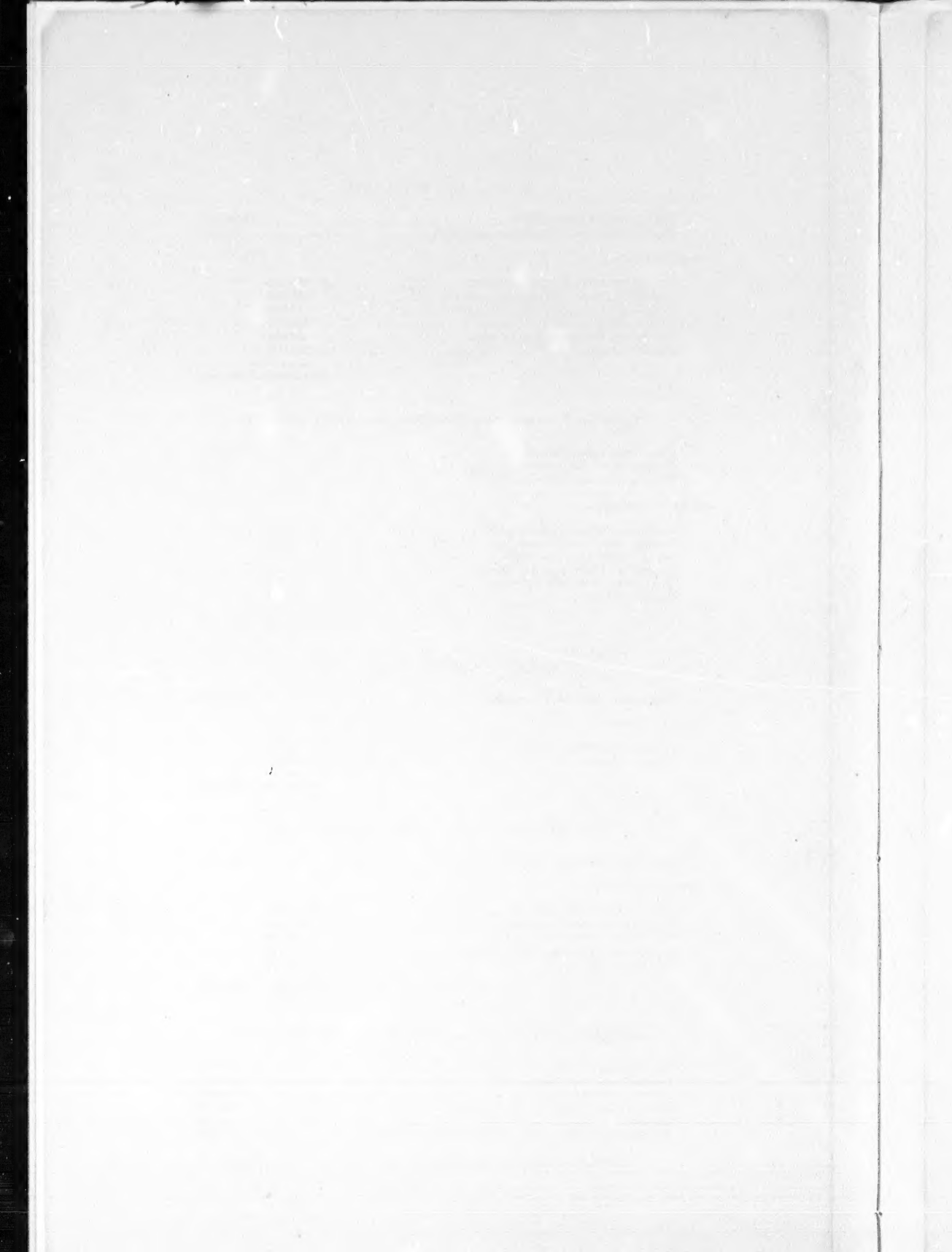
30,000 tons semi-anthracite, at \$11.00.....	\$330,000
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COST TO COMPANY—

Getting 30,000 tons at \$1.00.....	\$ 30,000
Freight, 30,000 tons at \$5.00.....	150,000
Sea freight, 30,000 tons at \$1.00.....	50,000
Incidentals, 30,000 tons at 25 cents.....	7,500
Balance—Profit.....	112,500
	\$330,000 \$330,000

ABSTRACT OF NET ANNUAL PROFITS ON THE COAL SALES.

San Francisco trade.....	\$ 624,000
Portland and Coast towns.....	255,000
Helena and Butte City.....	1,550,000
Kootenay Lake Mines and Local Markets.....	108,250
Railway.....	50,000
Her Majesty's Navy, on the Pacific Coast.....	112,000
Total of net annual profits from coal.....	\$2,699,750



Cannel coal of an inferior quality to the Crow's Nest Cannel, is now imported at Helena and on the coast all the way from Pennsylvania.

The following are the assays of samples from some of the coal seams. The assays were made by Mr. Hoffman, the head of the Government Laboratory at Ottawa. Although the result of these assays shows that the various kinds of coal are remarkable for their excellent quality and character still the assays do not represent the full value of these coals, inasmuch as the samples were taken from near the surface and had been exposed to the air for more than a year before the assays were made.

Each of the thirty-seven coal seams on the Company's property has been opened up from wall to wall showing the full thickness of the seam. The seams can be traced cropping out of the surface for a distance of over ten miles, and they dip in such a direction that the coal can be worked by driving levels along the seams to right and left and no sinking or pumping will be required.

GEOLOGICAL AND NATURAL HISTORY SURVEY.

Alfred R. C. Selwyn, L.L.D., F.R.S., Director.

MUSEUM AND OFFICE, SUSSEX ST., OTTAWA, DECEMBER 21st, 1887.

[G. S. L. E., 281, 1887.]

I have now the pleasure of laying before you the results of the examination of the two samples of coal from the property of the Crow's Nest Coal Mining Company, Second Crossing, Marten Creek, Crow's Nest Pass, Rocky Mountains, B. C., and which were labelled—the one, as from the "Peter" seam, said to be fourteen feet thick, clean coal, taken about thirty feet in from outcrop, the other as from the "Jubilee" seam, said to be thirty feet thick, clean coal, taken about fifty-five feet in from outcrop.

COAL FROM THE "PETER" SEAM.

PHYSICAL CHARACTERS.

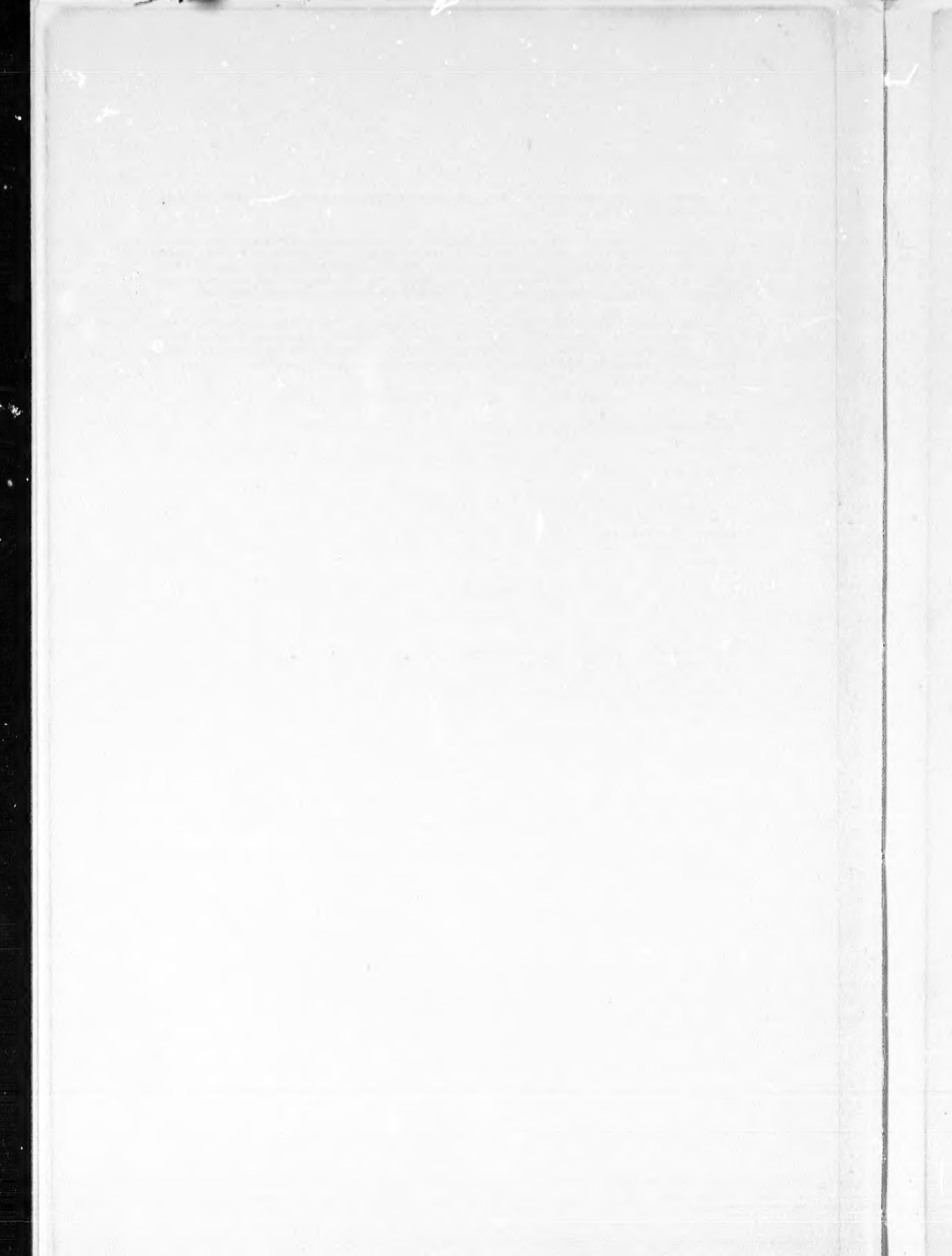
This coal has a crumpled, foliated structure; slicken-sides; color, greyish-black to black; lustre, resinous—that of the slicken-sided surfaces occasionally inclining to vitreous; firm, fracture irregular; slightly soils the fingers; does not contain any interlaminated calcite, but occasionally, here and there, a delicate film of iron pyrites; powder, brownish-black; it communicates a faint brownish-yellow tinge to a boiling solution of caustic potash; resists exposure to the air.

COAL FROM THE "JUBILEE" SEAM.

PHYSICAL CHARACTERS.

The description given of the coal from the "Peter" seam, applies also to this one, the only difference being that this coal did not contain any visible iron-pyrites, and communicated a very pale brownish-yellow, and hence a somewhat more decided color to a boiling solution of caustic potash.

Specific gravity, 1.3088 (temp. 15.5° C). Weight of one solid cubic foot, calculated from specific gravity, 81.80 pounds.



PROXIMATE ANALYSIS—FAST COKING.

LOCALITY.	Specific Gravity.	Weight of one cubic foot calculated from the specific gravity.	COMPOSITION, PER CENT.				Rate of Volatile to fixed combustible.	Percentage of Coke.	Character of the Coke.
			Hygroscopic Water.	Volatile Combustible Matter.	Fixed Carbon.	Ash.			
"Peter" Seam.....	1.3052	81.57	1.79	33.04	61.55	3.62	1: 1.86	65.17	{ A compact, firm coherent coke.
"Jubilee" Seam.....	1.3088	81.50	1.89	30.41	63.33	4.37	1: 2.08	67.70	

PROXIMATE ANALYSIS—SLOW COKING.

LOCALITY.	Specific Gravity.	Weight of one cubic foot calculated from the specific gravity.	COMPOSITION, PER CENT.				Rate of Volatile to fixed combustible.	Percentage of Coke.	Character of the Coke.
			Hygroscopic Water.	Volatile Combustible Matter.	Fixed Carbon.	Ash.			
"Peter" Seam.....	1.3052	81.57	1.79	25.45	64.14	3.62	1: 2.72	72.76	Non-coherent.
"Jubilee" Seam.....	1.3088	81.80	1.89	24.88	68.86	4.37	1: 2.77	73.23	